What is claimed is:

1. A method for increasing measuring accuracy for a limited path by using a measuring system having a sensor and a scale having path events, the method comprising the steps of:

during at least one learning phase, moving the sensor relative to the scale so as to form a map of actual geographical intervals of the path events; and

subsequent to the at least one learning phase, moving the sensor and the scale relative to each other and detecting the path events during a measuring phase, the path events being reproduced by the sensor as electric signals, and determining a measured path as a function of the detecting of the path events and the map.

2. The method as recited in claim 1 wherein during the at least one learning phase, the sensor is moved relative to the scale in a defined speed profile, and in connection with a constant time signal, a non-geometric representative of the interval between two path events of the path events is determined.

3. The method as recited in claim 2 wherein the non-geometric representative is determined from a speed of travel and a time between the two path events.

4. The method as recited in claim in claim 1 during the at least one learning phase, the sensor is moved relative to the scale in a defined speed profile, and in connection with a constant time signal, a geometric representative of the interval between two path events is determined by calculating the distance traveled from the speed of travel and the time required between the two path events.

5. The method as recited in claim 1 wherein, during the measuring phase, intervals between the path events are determined via measured values either as time intervals or as distance intervals so as to define measuring phase characters, the measuring phase characters capable of be compared with identical characters from the map, so that the actual geometric distance traveled during the measuring phase is capable of being reconstructed as a function of stored map values and the measured values.

6. The method as recited in claim 1 wherein individual values of the map are stored in a memory in such a way that reconstruction of an actual sequence of path segments between the path events is possible.

7. The method as recited in claim 6 wherein the individual values of the map are stored in the memory in the order that corresponds to the actual sequence of the path segments between the path events.

8. The method as recited in claim 1 further comprising using a search algorithm to identify an individual value from the map in a memory that occurs only once.

9. The method as recited in claim 1 further comprising using a search algorithm to identify a sequence of values from the map in the memory that occurs only once.

10. The method as recited in claim 9 wherein the sequence is made up at least in part from non-adjacent values.

11. The method as recited in claim 8 wherein a location found through the algorithm is provided with a digital mark.

12. The method as recited in claim 9 wherein a location found through the algorithm is provided with a digital mark.

13. The method as recited in claim 1 wherein the limited path is made up from a straight path segment.

14. The method as recited in claim 1 wherein the limited path is made up from a full circle.

15. The method as recited in claim 2 wherein the defined speed profile is represented by a constant speed over the entire limited path.

16. The method as recited in claim 1 wherein the electrical signals are postprocessed electronically.

17. The method as recited in claim 16 wherein the electrical signals are converted into square-wave signals.

18. The method as recited in claim 1 wherein stored values of the map are stored permanently in a digital memory.

19. The method as recited in claim 1 wherein stored values of the map are deletably stored in a digital memory.

20. The method as recited in claim 19 wherein when individual more exact values of the map exist, the more exact values are written over the inexact values.

21. The method as recited in claim 1 wherein the learning phase is run before each restart of the measuring phase.

22. The method as recited in claim 1 wherein the path events are random on the scale.

23. The method as recited in claim 1 wherein the path events on the scale have consistently decreasing or consistently increasing geometric intervals.

23. A device for carrying out the method as recited in claim 1 comprising the sensor and the scale, wherein the limited path is in the form of a straight path segment, and constitutes a distance sensor is used for example as a controller for electronic clutch management in a motor vehicle.

24. The device as recited in claim 23 wherein the distance sensor is an absolute distance sensor.

25. A device for carrying out the method as recited in claim 1 comprising the sensor and the scale, and wherein the limited path is in the form of a full circle so as to define a rotational angle sensor.

26. The device as recited in claim 25 wherein the device is placed on a crankshaft and/or camshaft to determine a rotational angle or rotational speed of a camshaft and/or crankshaft.

27. The device as recited in claim 26 wherein only every second path event of the crankshaft is utilized for a camshaft adjustment.

28. A device for performing the method as recited in claim 1 comprising the sensor and the scale, wherein only one interval between two adjacent path events has a different size than the intervals between the other path events.

29. The device as recited in claim 28 wherein the path events correspond to flanks of a trigger wheel.

30. The device as recited claim 23 wherein the sensor is designed as a Hall sensor.

31. The device as recited claim 25 wherein the sensor is designed as a Hall sensor.

32. The device as recited claim 28 wherein the sensor is designed as a Hall sensor.

33. The device as recited in claim 25 wherein the full circle has trigger wheel is made of metal.

34. A method for increasing measuring accuracy for a limited path by using a measuring system having a sensor and a scale having path events, the method comprising the steps of:

during at least one learning phase, moving the sensor relative to the scale so as to form first stored values, a map of actual geographical intervals of the path events over the limited path capable of being formed as a function of the first stored values; and

subsequent to the at least one learning phase, moving the sensor and the scale relative to each other and detecting the path events during a measuring phase, second values corresponding to the path events during the measuring phase being generated as function of electric signals from the sesnor; and

determining a geographical location along the limited path of at least one of the path events detected during the measuring phase as a function of the first stored values and the second values.

35. The method as recited in claim 34 wherein the geographical location is an actual distance.

36. The method as recited in claim 34 wherein the geographic location is a rotational angle.